

GAS "TRUE" CONVECTION BAKE OVEN

Abstract

Disclosed is a convection oven capable of producing a "true" convection cooking environment with a single gas burner disposed underneath the oven bottom in a combustion box. A fan compartment is disposed substantially at the center of the back wall, and defined by a baffle plate with a central fan inlet, a plurality of rearward-extending flanges, and a portion of the oven back wall. A centrifugal fan is disposed within the fan compartment. A flue spout is disposed between the oven cavity and the fan compartment and is adapted to join the combustion box and the oven cavity in fluid communication. Thus the centrifugal fan, located substantially centrally within the fan compartment will draw hot air and flue products upward from the combustion box, through the flue spout, through the central fan inlet, and blow the hot air and flue products into the oven cavity through peripheral fan outlets formed in the fan compartment. The oven may alternatively be operated in a fan-off mode, thus allowing the oven cavity to be heated by the upward flow of air due to natural convection.

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